

S/N 09/703,350



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|-------------------|--|-----------------|---------------|
| Applicant: | MEHRABAN ET AL. | Examiner: | G. NICKOL |
| Serial No.: | 09/703,350 | Group Art Unit: | 1642 |
| Filed: | OCTOBER 31, 2000 | Docket No.: | 11669.213USU1 |
| Confirmation No.: | 3065 | Customer No.: | 23552 |
| Title: | DIFFERENTIALLY EXPRESSED GENES INVOLVED IN ANGIOGENESIS, THE POLYPEPTIDES ENCODED THEREBY, AND METHODS OF USING THE SAME | | |

CERTIFICATE UNDER 37 CFR 1.10:

"Express Mail" mailing label number: EV 408488347 US
Date of Deposit: September 2, 2004

I hereby certify that this paper or fee is being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Commissioner for Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450.

By:

Name: Sheryl A. Boerboom

Declaration Under 37 C.F.R. §1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I do declare and say as follows:

1. In the above referenced application, the specification at pages 11 and 25 refers to PA23 as a "stanniocalcin precursor" with an accession number U25997. At the time of filing, the nucleic acid sequence and amino acid sequence of stanniocalcin precursor was known. An amino acid sequence and nucleic acid sequence for stanniocalcin precursor had been published in Olsen et al., 1996, *Proc. Natl. Acad. Sci. USA*, 93:1792-1796 and on Genbank under accession number U25997 (copy attached as Exhibit A).

2. In an Office Action dated March 5, 2004, the Examiner required that PA23 be uniquely identified by a sequence identifier, e.g. SEQ ID NO. The Examiner also required Applicants to amend the disclosure to include the amino acid sequence (SEQ ID NO:76) and nucleic acid sequence (SEQ ID NO:75) for stanniocalcin, which was incorporated into the

application by reference to Olsen et al., 1996, *Proc. Natl. Acad. Sci. USA*, 93:1792-1796 and Genbank accession number U25997 .

3. The Amendment accompanying this declaration amends the specification to refer to PA23 by sequence identifiers and to include the nucleotide and amino acid sequence referred to by Genbank Accession No. U25997. The sequences corresponding to the newly added sequence identifiers in the accompanying substitute paper and computer readable copies of the sequence listing are the same sequences incorporated by reference in the application.

4. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and the like are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.



Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date:

September 2, 2004

Katherine M. Kowalchyk
Katherine M. Kowalchyk
Reg. No. 36,848



CGCTCAGGATACGACTTCGCTGCTAGAGATCGGATCCCCGGGCTTATTATATAGCTCGATCGATC1
 TTCTCTATATCCGCGATGGGATATATACACACACACCGCGCGATAGCATGACTGATCT/
 ECCCCATCT/
 CACAGACTTACGCT

Entrez

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Taxonomy

Book

Search Nucleotide

☐

for

Go

Clear

Limits

Preview/Index

History

Clipboard

Details

Display

default

☐

Show: 20

☐

Send to

File

☐

Get Subsequence

Fea

☐ 1: U25997. Homo sapiens stan...[gi:3006202]

Links

LOCUS HSU25997 3901 bp mRNA linear PRI 02-APR-1998
 DEFINITION Homo sapiens stanniocalcin precursor (STC) mRNA, complete cds.
 ACCESSION U25997
 VERSION U25997.1 GI:3006202
 KEYWORDS .
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 3901)
 AUTHORS Chang,A.C., Janosi,J., Hulsbeek,M., de Jong,D., Jeffrey,K.J.,
 Noble,J.R. and Reddel,R.R.
 TITLE A novel human cDNA highly homologous to the fish hormone
 stanniocalcin
 JOURNAL Mol. Cell. Endocrinol. 112 (2), 241-247 (1995)
 MEDLINE 96077825
 PUBMED 7489828
 REFERENCE 2 (bases 1 to 3901)
 AUTHORS Chang,A.C., Jeffrey,K.J., Tokutake,Y., Shimamoto,A., Neumann,A.A.,
 Dunham,M.A., Cha,J., Sugawara,M., Furuichi,Y. and Reddel,R.R.
 TITLE Human stanniocalcin (STC): genomic structure, chromosomal
 localization, and the presence of CAG trinucleotide repeats
 JOURNAL Genomics 47 (3), 393-398 (1998)
 MEDLINE 98149987
 PUBMED 9480753
 REFERENCE 3 (bases 1 to 3901)
 AUTHORS Chang,A.C.-M.
 TITLE Direct Submission
 JOURNAL Submitted (02-MAY-1995) Childrens Medical Research Institute, 214
 Hawkesbury Road, Westmead, NSW 2145, Australia
 REFERENCE 4 (bases 1 to 3901)
 AUTHORS Chang,A.C.-M.
 TITLE Direct Submission
 JOURNAL Submitted (02-APR-1998) Childrens Medical Research Institute, 214
 Hawkesbury Road, Westmead, NSW 2145, Australia
 REMARK Sequence update by submitter
 COMMENT On Apr 2, 1998 this sequence version replaced gi:975297.
 FEATURES
 Location/Qualifiers
 source 1..3901
 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /cell_line="HT1080"
 /cell_type="fibroblast"
 /note="similar to the nucleotide sequence in GenBank
 Accession Number S50179"
 gene 1..3901
 /gene="STC"
 repeat_region 30..125

CDS /rpt_type=tandem
/rpt_unit="cag"
285..1028
/gene="STC"
/function="putative calcium responsive hormone"
/note="similar to SwissProt Accession Number Q08264"
/codon_start=1
/product="stanniocalcin precursor"
/protein_id="AAC09472.1"
/db_xref="GI:975298"
/translation="MLQNSAVLLVLVISASATHEAEQNDSVSPRKSRVAAQNSAEVVR
CLNSALQVGCFAFACLENSTCDTDGMYDICKSFLYSAKFDTQGKAFVKESLKCIANG
VTSKVFLAIRRCSTFQRMIAEVQEECYSKLNVCSIAKRNPEAITEVVQLPNHFSNRY
NRLVRSLLCEDTSTVSTIRDSLMEKIGPNMASLFHILQTDHCAQTHPRADFNRRTNE
PQKLKVLLRNLRGEEDSPSHIKRTSHESA"
sig_peptide 285..383
/gene="STC"
/note="pre-pro-peptide"
mat_peptide 384..1025
/gene="STC"
/product="stanniocalcin"
/function="putative calcium responsive hormone"
polyA_site 3882
/gene="STC"
/note="19 A nucleotides"

ORIGIN

```
1  cagtttgcaa aagccagagg tgcaagaagc agcgactgca gcagcagcag cagcagcggc
61 ggtggcagca gcagcagcag cggcggcagc agcagcagca gcggaggcac cgggtggcagc
121 agcagcatca ccagcaacaa caacaaaaaa aaatcctcat caaatcctca cctaagcttt
181 cagtgtatcc agatccacat cttcactcaa gccaggagag ggaaagagga aaggggggga
241 ggaaaaaaaa aaaacccaac aacttagcgg aaactttctc gagaatgctc caaaactcag
301 cagtgtctct ggtgctggtg atcagtgtct ctgcaacca tgaggcggag cagaatgact
361 ctgtgagccc caggaaatcc cgagtggcgg ctcaaaactc agctgaagtg gttcgttgcc
421 tcaacagtgc tctacaggtc ggctgcgggg cttttgcatg cctggaaaac tccacctgtg
481 acacagatgg gatgtatgac atctgtaaat ccttcttgta cagcgctgct aaatttgaca
541 ctcagggaag agcattcgtc aaagagagct taaaatgcat cgccaacggg gtcacctcca
601 aggtcttctc cgccattcgg aggtgtctca ctttccaaag gatgattgct gaggtgcagg
661 aagagtgtca cagcaagctg aatgtgtgca gcatcgccaa gcggaacctt gaagccatca
721 ctgaggtcgt ccagctgccc aatcacttct ccaacagata ctataacaga cttgtccgaa
781 gcctgtctga atgtgatgaa gacacagtca gcacaatcag agacagcctg atggagaaaa
841 ttgggcctaa catggccagc ctcttcaca tcctgcagac agaccactgt gcccacacac
901 acccagagc tgacttcaac aggagacgca ccaatgagcc gcagaagctg aaagtccctc
961 tcaggaacct ccgaggtgag gaggactctc cctcccatc caaacgcaca tcccatgaga
1021 gtgcataacc agggagaggt tattcacaac ctcaccaaac tagtatcatt ttaggggtgt
1081 tgacacacca attttgagtg tactgtgctt ggtttgattt ttttaaagta gttcctatth
1141 tctatcccc ttaaagaaaa ttgcatgaaa ctaggcttct gtaatcaata tcccaacatt
1201 ctgcaatggc agcattccca ccaacaaaat ccatgtgatc attctgcctc tctcaggag
1261 aaagtacctt cttttacca cttcctctgc catgtctttt cccctgctcc cctgagacca
1321 ccccaaaca caaaacattc atgtaactct ccagccattg taatttgaag atgtggatcc
1381 ctttagaacg gttgccccag tagagttagc tgataaggaa actttattta aatgcatgtc
1441 ttaaagtctc ataaagatgt taaatggaat tcgtgttatg aatctgtgct ggccatggac
1501 gaatatgaat gtcacatttg aattcttgat ctctaagtag ctagtgtctt atggtcttga
1561 tctccaatg tctaattttt tttccgacac atttaccaaa ttgcttgagc ctggctgtcc
1621 aaccagactt tgagcctgca tcttcttgca tctaataaaa aacaaaaagc taacatcttt
1681 acgtactgta actgtctcaga gctttaaaag tatctttaac aattgtctta aaaccagaga
1741 atcttaaggt ctaactgtgg aatataataa gctgaaaact aatgtactgt acataaattc
1801 cagaggactc tgcttaaaaca aagcagtata taataacttt attgcatata gatttagttt
1861 tgtaacttag ctttattttt ctttctctgg gaatggaata actatctcac ttccagatat
1921 ccacataaat gctccttgtg gcctttttta taactaaggg ggtagaagta gttttaattc
1981 aacatcaaaa cttaatgatg gcctgtatga gacaggaaaa accaacaggt ttatctgaag
```

2041 gaccccaggt aagatgttaa tctcccagcc cacctcaacc cagaggctac tcttgactta
2101 gacctatact gaaagatctc tgtcacatcc aactggaaat tccaggaacc aaaaagagca
2161 tccctatggg cttggaccac ttacagtgtg ataaggccta ctatacatta ggaagtggta
2221 gttcttttact cgtccccctt catcgggtgcc tggtagctctg gcaaagtatg atgggggtggg
2281 agacttttcca ttaaatcaat caggaatgag tcaatcagcc tttaggtctt tagtccgggg
2341 gacttggggc tgagagagta taaataaccc tgggctgtcc agccttaata gacttctctt
2401 acattttctgt cctgtagcac gctgcctgcc aaagtagtcc tggcagctgg accatctctg
2461 taggatcgta aaaaaataga aaaaaagaaa aaaaaagaa agaaagaggg aaaaagagct
2521 ggtgggttga tcattttctgc catgatgttt acaagatggc gaccaccaa gtcaaacgac
2581 taacctatct atgaacaaca gtagtttctc agggctactg tccttgaacc caacagtccc
2641 ttatgagcgt cactgcccac caaagggtcaa tgtcaagaga ggaagagagg gaggaggggt
2701 aggactgcag gggccactcc aaactcgctt aggtagaaac tattggtgct cgactctcac
2761 taggctaaac tcaagatttg accaaatcga gtgataggga tcctgggtggg aggagagagg
2821 gcacatctcc agaaaaatga aaagcaatac aactttacca taaagccttt aaaccagta
2881 acgtgctgct caaggaccaa gagcaattgc agcagacca gcagcagcag cagcagcaca
2941 aacattgctg cctttgtccc cacacagcct ctaagcgtgc tgacatcaga ttgttaaggg
3001 catttttata ctccagaactg tcccattccc aggtcccaa acttatggac actgccttag
3061 cctcttgga atcaggtaga ccatattcta agttagactc ttccccctcc tcccacactt
3121 cccaccccca ggcaaggctg acttctctga atcagaaaag ctattaaagt ttgtgtgttg
3181 tgtccatttt gcaaacccaa ctaagccagg accccaatgc gacaagtagt tcatgagtat
3241 tcctagcaaa tttctctctt tcttcagttc agtagatttc cttttttctt ttcttttttt
3301 tttttttttt tttttggctg tgacctcttc aaaccgtggg accccccctt ttctccccac
3361 gatgatctct atatatgtat ctacaataca tatatctaca catacagaaa gaagcagttc
3421 tcacatgttg ctagtttttt gcttctcttt cccccaccct actccctcca attccccctt
3481 taaacttcca aagcttcgtc ttgtgtttgc tgcagagtga ttcggggggt gacctagacc
3541 agtttgcatg attcttctct tgtgatttgg ttgcacttta gacatttttg tgccattata
3601 tttgcattat gtattttataa tttaaatgat atttaggttt ttggctgagt actggaataa
3661 acagtgagca tatctgggat atgtcattat ttattgttaa attacatttt ttaagctcca
3721 tgtgcatata aagggttatga aacatatcat ggtaatgaca gatgcaagtt attttatttg
3781 cttatttttt ataattaaag atgccatagc ataatatgaa gcctttgggtg aattccttct
3841 aagataaaaa taataataaa gtgttacgtt ttattgggtt caaaaaaaaa aaaaaaaaaa
3901 a

//

[Disclaimer](#) | [Write to the Help Desk](#)
[NCBI](#) | [NLM](#) | [NIH](#)

Aug 30 2004 07:13:44